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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/682,199

10/10/2003

Peter Hermentin

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22852

7590

05/22/2006

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EXAMINER

VENCI, DAVID J

ART UNIT

PAPER NUMBER

1641

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/682,199

Applicant(s)

HERMENTIN ET AL.

Examiner

David J. Venci

Art Unit

1641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on February 21, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-25,27,28,30,31,33 and 35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-25,27,28,30,31,33 and 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action is withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 21, 2006, is entered.

Currently, claims 16-25, 27-28, 30-31, 33 and 35 are under examination.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

Claim 35 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 35, the phrase "the visualization" lacks antecedent basis.

Claim Rejections - 35 USC § 103

Claims 16-24, 27-28, 30-31, 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shainoff, *Electrophoresis and direct immunoprobng on glyoxal agarose*, in ADVANCES IN ELECTROPHORESIS, Vol. 6, VCH Publishers, pp. 65-176 (1993), in view of Bhat & Nagineni, 170 ANAL. BIOCHEM 105 (1988).

Shainoff teaches a method for the determination of multimers of multimer-forming proteins by gel electrophoresis, comprising:

fractionating a sample containing von Willebrand factor (see p. 78, left column, 2.1.1.1 Gel concentrations, first paragraph) or fibrinogen (see p. 66, left column, 1.1 Development of glyoxyl agarose and composites, first paragraph) into multimer bands by electrophoresis using a continuous, homogeneous (see Table 1) agarose gel (see Title);

visualizing multimer bands by a dye in the gel (see p. 98, left column, 2.7 General protein staining);

optionally, quantifying the dyed multimer bands (see p. 98, right column, 2.8 Mounting, photographing and scanning gels, first paragraph, "densitometers").

Shainoff does not describe "submarine" electrophoresis.

However, Bhat & Nagineni describe the use of "submarine" electrophoresis for resolving proteins (see Title).

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It would have been obvious for a person of ordinary skill in the art to replace the electrophoretic protocol of Shainoff with a "submarine" method because Bhat & Nagineni discovered that the "submarine" method allows for stacking of multiple gels allowing for multiple simultaneous runs (see Abstract).

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shainoff, *Electrophoresis and direct immunoprobng on glyoxal agarose*, in ADVANCES IN ELECTROPHORESIS, Vol. 6, VCH Publishers, pp. 65-176 (1993), and Bhat & Nagineni, 170 ANAL. BIOCHEM 105 (1988), as applied to claim 16 and 24, and further in view of Perrella & Denisov, 259 METHODS ENZYMOL. 468 (1995).

Shainoff and Bhat & Nagineni describe a method for the determination of multimers as substantially described, *supra*, and incorporated herein.

Shainoff and Bhat & Nagineni do not describe a method wherein electrophoresis is carried out between 8-12°C.

However, Perrella & Denisov describe the use of temperature to modify electrophoresis (see Title).

It would have been obvious for a person of ordinary skill in the art to modify the electrophoretic protocol of Shainoff and Bhat & Nagineni by modifying temperature because Perrella & Denisov teach that the use of temperature to modify electrophoresis allows for probing of "intermediate stages of ligation" and "quaternary structural changes" (see first paragraph).

Response to Arguments

In prior Office Action, claims 16-34 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for various reasons. Applicants' amendment and/or argumentation are fully persuasive and sufficient to overcome these rejections. Accordingly, these rejections are withdrawn.

In prior Office Action, claims 16, 19-26, 30, 32 and 34 were rejected under 35 U.S.C. 102(b) as being anticipated by Krizek & Rick, 97 THROMB. RES. 457 (2000). In addition, claims 16-27 and 30-34 were rejected under 35 U.S.C. 103(a) as being unpatentable over Connaghan et al., 65 BLOOD 589 (1985), in view of Krizek & Rick, 97 THROMB. RES. 457 (2000). Applicants' amendment and/or argumentation are fully persuasive and sufficient to overcome these rejections. Accordingly, these rejections are withdrawn.

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Conclusion


No claims are allowed at this time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Venci whose telephone number is 571-272-2879. The examiner can normally be reached on 08:00 - 16:30 (EST). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David J Venci
Examiner
Art Unit 1641

djv


LONG V. LE 05/14/06
SUPERVISORY PATENT EXAMINER
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